vir2
INSTRUMENTS

ACOU6TICS

USER MANUAL

Produced by Vir2 Instruments

Vir2 Instruments is an international team of sound designers, musicians, and programmers who specialize in creating the world's most advanced virtual instrument libraries. Vir2 is producing the instruments that shape the sound of modern music.

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ACOU6TICS

USER MANUAL

Acou6tics/
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CHAPTER 01

Acou6tics/ INTRODUCTION TO THE LIBRARY

Thank you for purchasing **Acou6tics**.

Following in the footsteps of Vir2 Instruments' award-winning electric guitar virtual instrument "Electri6ity", **Acou6tics** applies the same advanced technologies to re-imagine the virtual acoustic guitar. Vir2 has meticulously recorded six different acoustic instruments: a steel-string guitar, twelve-string, nylon string, ukulele, mandolin, guitalele and presents them in astonishing detail. It features both plectrum and finger picking, as well as Blumlein stereo recordings alongside the piezo pickup perspective. Thousands of samples across more than a dozen articulations were recorded for each instrument including sustains, mutes, releases, legatos, hammer-ons and pull-offs, slides, harmonics, and effects. Acou6tics also features virtual room control with adjustable mic distance and sympathetic resonance.

Acou6tics is powered by the industry-leading Kontakt engine. It is compatible with VST, AudioUnit, RTAS (Pro Tools 9 and higher) and AAX (Pro Tools 10 & 11) plug-in formats allowing it to work seamlessly within any major sequencer, in addition to standalone use.

****A how to use 'QUICK START' can be found on page 63 of the Acou6tics manual.**

CHAPTER 02

Acou6tics/ REQUIREMENTS AND INSTALLATION

SYSTEM REQUIREMENTS

For Mac users, Acou6tics requires OS 10.7.3 or greater, an Intel Core Duo 2.0GHz or higher, a USB port, and minimum 2GB of RAM.

For Windows users, Acou6tics requires Windows 7 or 8 (latest s.p.), 32 or 64 compatible, an Intel Core Duo 2.0GHz or higher, a USB port, and minimum 2GB of RAM.

The library requires approximately 13GB of disk space.

Vir2 Instruments strongly recommends more than 4GB of RAM and an 88-key controller in order to use Acou6tics to its fullest potential.

INSTALLING

The installation of Acou6tics consists of two separate steps: the installation of the Kontakt engine, and the installation of the Acou6tics library.

In the Acou6tics folder, you will see the installers for Kontakt 5 and the Acou6tics library folder. Move the Acou6tics library folder to any location on your hard drive, then run the Kontakt 5 installer.

The Kontakt installer will install the Kontakt Player engine, its standalone application, all of its plug-in versions, and the Service Center authorizer program. We recommend the Easy Install and that the install locations for each component are left at their default settings.

The Acou6tics library is approximately 13GB in size, and can be installed on any available hard drive. For speed reasons, we recommend it be installed on internal or eSATA drives. A Firewire drive is also acceptable. An external USB drive may give somewhat less optimized performance. We also recommend 7200rpm drives or SSDs regardless of the interface used.

Once Kontakt is installed, launch the standalone application, or open it as an instrument plug-in from within your preferred host application. Click on the Libraries tab from the Kontakt browser on the left side of the Kontakt interface. Just below “Libraries,” click on “Add Library.” A “Locate Folder” window will appear. Navigate to the Acou6tics Library folder, highlight it, then click “Choose”. Acou6tics should now appear in Kontakt’s library browser..

UPDATING

After installation, please make sure that you are fully updated to the most recent versions of the three components that make up the Acou6tics package: the library (which contains all the patch information and programming), the engine (which is powered by Kontakt), and the authorizer (Service Center). It is possible that any of these components may have a more recent version than shipped in your physical package, so you should check for updates to each of these three. You can do this by visiting the vir2.com web site and checking the Support area.

AUTHORIZING

After you’ve completed installation, Acou6tics will be working in demo mode, meaning it will only work for 15 minutes at a time. To fully authorize it, launch Service Center (found in the Applications folder on a Mac, or the Program Files folder on Windows) and follow its instructions. You will be prompted to enter your e-mail address and password that make up your Native Instruments account, or will be given an option to create an account if you don’t already have one. Once inside the Service Center, it will give you a list of all the Native Instruments and NI-powered products on your hard drive and give you the option to activate them. You are allowed to install and use Acou6tics on up to two computers simultaneously.

Service Center will guide you through the process for either online (instant) activation, or offline activation if the computer on which you installed Acou6tics does not have direct access to the internet.

CHAPTER 03

Acou6tics/ USING KONTAKT

HOW TO ACCESS THE ACOU6TICS LIBRARY FROM KONTAKT

Acou6tics ships as a Kontakt-powered library, and Acou6tics is opened from within Kontakt, which can be run either as a standalone application, or as a plug-in hosted by any major sequencer on either Macintosh or Windows platforms. All these versions are installed by the Easy Install option of the installer.

Users who don't own a sequencer, or would like to simply boot up and be able to play Acou6tics, can go to their Applications folder (Mac) or Program Files folder (Windows) to launch Native Instruments > Kontakt.

Users who wish to use Acou6tics for sequencing or recording should use it in plug-in mode within a host sequencer. Kontakt supports the VST, AudioUnit, and RTAS plug-in formats. Any host sequencer that supports these plug-in formats properly will be able to use Kontakt. Instructions vary slightly from sequencer to sequencer, but the general procedure is to instantiate Kontakt as a virtual instrument plug-in, then load an Acou6tics instrument in Kontakt, then route a MIDI track to Kontakt so it can be triggered and recorded.

The following instructions will help standalone and plug-in users get up and running quickly with a basic track of Acou6tics.

USING KONTAKT IN STANDALONE MODE

The standalone Kontakt application can be found in the Applications > Kontakt 5 folder for Mac users, or Program Files > Native Instruments > Kontakt 5 for Windows users.

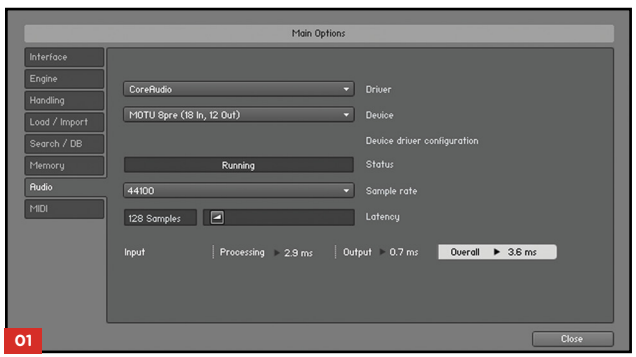
After launching the Kontakt application for the first time, you will be presented with a dialog box to set up your audio and MIDI settings. Settings will vary for each user according to the specific setup, but the important thing is to route the audio to a valid audio device, and to set the buffer

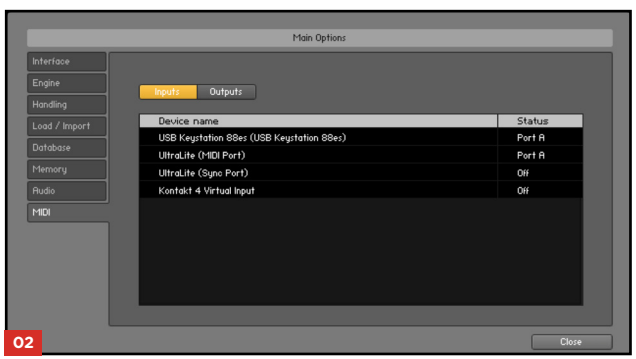
reasonably low for good latency performance. We recommend 256 samples or less. The lower the latency slider, the less latency (the split second between the physical playing of the note and the sound coming out of Kontakt) will be, but the harder the computer will have to work. Typical useful values range between 128 and 256, however very fast computers may be able to handle lower values, while very slow computers may need higher values. **[01]**

The MIDI page of the Options dialog box must be configured in order to let Kontakt know which MIDI device(s) to respond to. Kontakt will respond to up to four MIDI input ports (A, B, C, and D), so we recommend you switch one MIDI source on to Port A, as shown in the graphic below. **[02]**

More detailed information on the setup options can be found in the accompanying Kontakt manual.

Once you have completed Kontakt setup, jump ahead to the Getting Started with Acou6tics section below.





USING KONTAKT AS A VST PLUG-IN IN CUBASE AND NUENDO

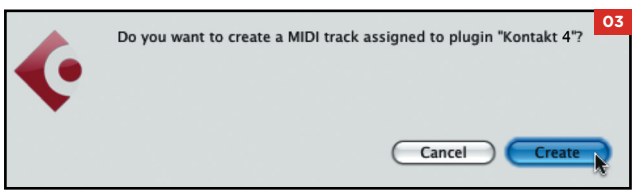
Users of Steinberg's Cubase or Nuendo sequencers can use Kontakt as a VST plug-in. These instructions have been prepared in Cubase 5, although Kontakt may also work in earlier versions if the computer meets the system requirements.

Once the project is open, go to the Devices menu and choose VST Instruments: **[01]**

When the VST Instruments window appears, click in the first available slot in which "no instrument" is listed. **[02]**

A popup menu will appear; choose Kontakt 5.

An alert box will appear asking if you want to create a MIDI track assigned to the Kontakt 5 plug-in. Click Create. **[03]**



The Kontakt window will appear, and a MIDI track will be created, transmitting to Kontakt's MIDI channel A-1. When it is record-enabled, it will send any incoming MIDI played on your controller into Kontakt.

At this point, you can skip down in the instructions to the Getting Started With Acou6tics section below.

USING KONTAKT AS A VST OR AUDIOUNIT PLUG-IN IN ABLETON LIVE

Users of Ableton Live can use Kontakt as a VST or AudioUnit plug-in, depending on the version. The functionality is the same. These instructions have been prepared in Live 7, although Kontakt may also work in earlier or later versions if the computer meets the system requirements.

Once the project is open, go to the left side and click on the third icon down to show the Plug-in Devices list, then scroll to the Native Instruments folder and locate Kontakt 5: **[04]**

Drag Kontakt 5 into the central area where the text "Drop Files and Devices Here" is shown.

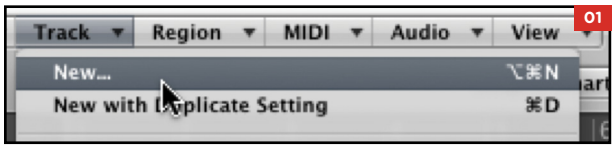
The Kontakt interface will appear, and it will already be actively transmitting to Kontakt's MIDI channel A-1. When it is record-enabled, it will send any incoming MIDI played on your controller into Kontakt.

At this point, you can skip down in the instructions to the Getting Started With Acou6tics section below.

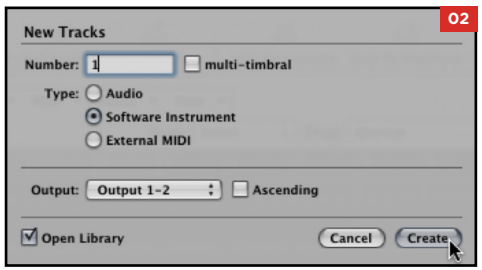
USING KONTAKT AS AN AUDIOUNIT PLUG-IN IN LOGIC PRO, LOGIC STUDIO, LOGIC EXPRESS, ETC.

Users of Apple's Logic can use Kontakt as an AudioUnit plug-in. These instructions have been prepared in Logic Pro 8, although Kontakt may also work in earlier versions if the computer meets the system requirements.

Once inside your Logic project, go to the Track mini-menu (in the central area of your screen) and choose Track > New... **[01]**



The New Tracks dialog box will appear. Make sure Software Instrument is selected, then click Create. **[02]**



The new instrument track will be created. On the left side of the screen you will see the channel strip for that channel, including a fader, pan knob, and various insert slots. Locate the blank slot just below the letters "I/O" and above the output pair: **[03]**

Click there, and a list of available instrument plug-ins will appear. Choose AU Instruments > Native Instruments > Kontakt 5 > Stereo. **[04]**

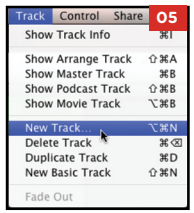
The Kontakt window will appear, and a MIDI track will be created, transmitting to Kontakt's MIDI channel A-1. When it is record-enabled, it will send any incoming MIDI played on your controller into Kontakt.

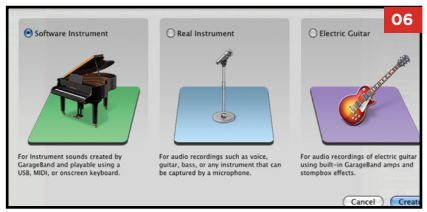
At this point, you can skip down in the instructions to the Getting Started With Acou6tics section below.

USING KONTAKT IN GARAGEBAND

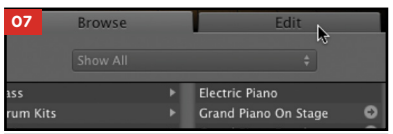
Users of Apple's GarageBand can use Kontakt as an AudioUnit plug-in. These instructions have been prepared in GarageBand 5 (which shipped with iLife '09), although Kontakt may also work in earlier versions if the computer meets the system requirements.

Once inside your GarageBand project, go to the Track menu and choose New Track. **[05]**





A window with three choices will appear. Choose Software Instrument, then click Choose. **[06]** On the right side of the interface, the Browse tab will be showing. Switch to the Edit tab. **[07]** The Sound Generator will default to Piano. Click on Piano, and a popup menu will appear. Choose Audio Unit Modules > Kontakt 5. **[08]**



Note: GarageBand may default to inserting effects, such as a compressor and a visual EQ track. This will color the sound. If you don't want these effects used, you can remove them.

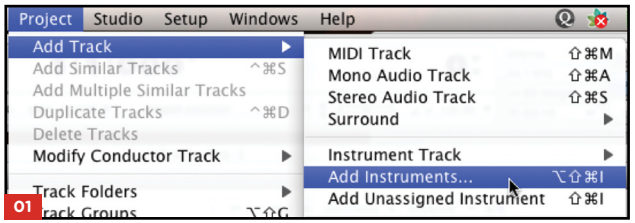
Once Kontakt 5 is selected, the icon will change to the AudioUnit icon (the ball with sound waves radiating outward). Double-click the icon to bring up the Kontakt window. **[09]**

The Kontakt window will appear, and a MIDI track will be created, transmitting to Kontakt's MIDI channel A-1. When it is record-enabled, it will send any incoming MIDI played on your controller into Kontakt.

USING KONTAKT AS AN AUDIOUNIT PLUG-IN IN DIGITAL PERFORMER

Users of MOTU's Digital Performer can use Kontakt as an AudioUnit plug-in. These instructions have been prepared in Digital Performer 6, although Kontakt may also work in earlier versions if the computer meets the system requirements.

Once the project is open, go to the Project menu and choose Add Track > Add Instruments... **[01]**



In the resulting dialog box, click on the unassigned pull down menu, and choose Native Instruments > Kontakt 5. You can also change the number of MIDI tracks to be added, if you know you will want to use more than one. **[02]**

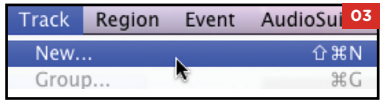
The Kontakt window will appear, and a MIDI track will be created, transmitting to Kontakt's MIDI channel A-1. When it is record-enabled, it will send any incoming MIDI played on your controller into Kontakt.

At this point, you can skip down in the instructions to the Getting Started With Acou6tics section below.

USING KONTAKT AS AN RTAS PLUG-IN IN PRO TOOLS

Users of Digidesign's Pro Tools (M-Powered, LE, or TDM) can use Kontakt as an RTAS or AAX plug-in. These instructions have been prepared in Pro Tools 8, although Kontakt may also work in earlier versions if the computer meets the system requirements.

Once the project is open, go to the Track menu and choose New... **[03]**



In the dialog box that appears, choose the appropriate options, such as the following: create 1 new stereo Instrument Track in samples. Then click Create. **[04]**

Go to the Mix window and look at the channel strip for the instrument. At the very top is an area for Inserts A-E. **[05]**

Click on the first of the five slots, and navigate through the popup menu to choose multichannel plug-in > Instrument > Kontakt 5. **[06]**

The Kontakt window will appear. At this point, you can skip down in the instructions to the Getting Started With Acou6tics section below.

USING KONTAKT AS A PLUG-IN IN ANOTHER HOST

There are too many host programs to cover here in detail, but any modern sequencer that properly supports the VST, AudioUnit, or RTAS standards should be able to use Kontakt properly, and load Acou6tics within it. Consult the manual for your specific host to find out how to instantiate the Kontakt virtual instrument.

CHAPTER 04

Acou6tics/ GETTING STARTED W/ MIC & FX

MIC & FX | MIC 1 | MIC 2 | PIEZO

The page is split into two tabs: '**Mic 1 + Mic 2**' and '**Piezo**'. Each tab has its own FX which can be turned on or off separately. You can switch the various build-in FX by clicking on the **on/off** button. To edit the FX parameters simply click on '**Edit**' and to close the FX page, press '**Edit**' again.

You can also change the volume and panning for each microphone on this page. By default, the stereo pair '**Mic 1 + Mic 2**' is loaded. To load or purge any of the channels, simply click on the '**Mic 1**', '**Mic 2**' or the '**Piezo**' button. When the button is highlighted, the samples are loaded. If it's black, the samples are purged from memory.

NOTE: If you have performance issues, you can disable all mics except one (e.g. **Mic 1**), then later load all the other samples when doing the mixdown of your track. Also make sure to raise your buffer size when having performance issues. With lower audio buffer sizes, the Kontakt engine needs more and more CPU!

CHAPTER 05

Acou6tics/ CHORDS

CHORDS | USER VOICINGS | SAVE/LOAD USER CHORDS | FAC. RESET

On the Chord tab you can create custom chord libraries. To do so, simply activate '**User Voicings**' by clicking on the button. If you now play a chord, you can select the voicing you'd like to hear, whenever that chord is played. To change the chord you want played, rotate the knob.

If you have built yourself a library with custom chords and you now want to use them in all instruments - which have the same amount of strings and the same tuning, e.g. Nylon, Western & 12 String, simply press '**Save User Chords**'. If you want to change some chords for one session, but you decide to use your default library again at a later point, simply press '**Load User Chords**'. To reset all chords to their original voicing, press '**Factory Reset**'. This is also useful to completely start a new chord library from scratch.

Note: Adding a capo makes it necessary to learn your user chords again. All previously learned chords, without capo added, won't be overwritten. Whenever you remove the capo all your user chords are back as they were before. You can create a user chord library for each fret you put a capo on.

CHAPTER 06

Acou6tics/ KEYSWITCHES

KEYSWITCHES | PRESETS | DEFAULT KEYSWITCHES

The keyswitch page allows you to create or modify keyswitch banks. Through this page you can create your own keyswitch layouts that fit your needs. To do so, simply press an already assigned keyswitch or any key outside the **blue** play range and select the type of the keyswitch (keyswitch, forced-keyswitch or trigger key) in the menu at the bottom of the tab.

You can save or load a keyswitch setup with the '**Preset**' menu or you can copy or reset certain banks to quickly create variations of your default keyswitch bank.

Note: Keyswitch presets are compatible between all instruments. If you set up a bank with the Western Guitar and you want to later load this bank when working with a different guitar, for example, the Ukulele, this is possible. You might notice that some keyswitches won't be available for the Ukulele that were available for the Western guitar. That is becuase not all instruments have all the articulations available but the engine takes care of this.

Bank Tab (Banks 1-8)

Here you can select up to 8 banks to edit.

Banks | Keyswitch

You can select the MIDI note that will activate the selected bank.

Banks | Play Range

Select up to 3 different play ranges:

• Full: The play range covers the full range of the instrument

• Reduced: The play range is reduced to make room for the maximum amount of keyswitches or trigger keys.

• Minimum: The play range is set to minimum range to make place for more keyswitches or trigger keys, like e.g. the picking trigger keys. This is useful for chord picking or strumming, since you don't necessarily need the high octaves in that case.

Banks | Play Mode

Select 1 of 4 different Play Modes:

• Polyphonic: This is the default mode, you can play chords and single notes in this mode.

• Tremolo: Plays in tremolo mode. You can play chords and single notes in this mode (strum related trigger keys will be disabled).

• Legato HO / PO: Plays in legato mode (hammer ons / pull offs), strum related trigger keys will be disabled.

• Legato SU / SD: Plays in legato mode (slides up / slides down), strum related trigger keys will be disabled.

Banks | Chord Mode

Here you can choose how you want your chords played:

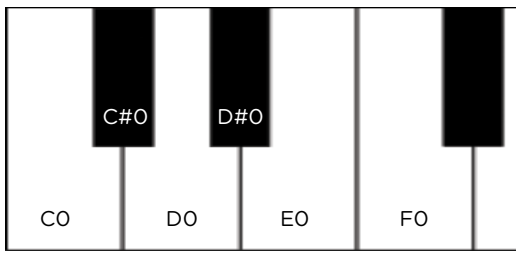
• Normal: Chords are played back immediately when played with left hand.

• Play bass only: Only the root note of a chord is played back when played with left hand. Use the pick trigger keys for picking patterns or the strum keys for strumming the full chord.

• Play bass only and alternate bass: The root note and a second note of the chord alternate playback. Use the pick trigger keys for picking patterns or the strum keys for strumming the full chord.

• Silent chords: Chords are completely muted. Only the pick trigger keys for picking patterns or the strum keys for strumming the full chord.

DEFAULT KEYSWITCH BANKS



C0 ➞ Bank 1 ➞ Polyphonic mode ➞ Full playrange, (Default Bank)

C#1 ➞ Bank 2 ➞ Polyphonic mode ➞ Minimum playrange ➞ Additional natural harmonic keys

D0 ➞ Bank 3 ➞ Polyphonic mode ➞ Reduced playrange ➞ Additional chord picking and sliding keys

D#0 ➞ Bank 4 ➞ Tremolo mode ➞ Full playrange ➞ Use modwheel to control velocity

E0 ➞ Bank 5 ➞ Legato mode (hammer ons / pull offs) ➞ Full playrange

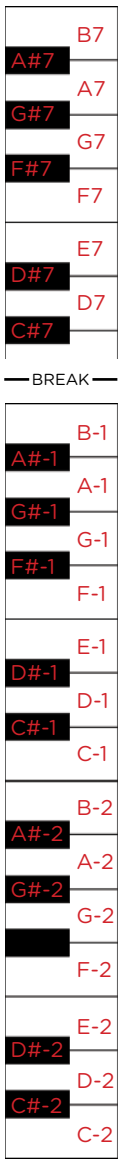
F0 ➞ Bank 6 ➞ Legato mode (slides up / slides down) ➞ Full playrange

ALL DEFAULT KEY SWITCH BANKS ARE MAPPED OUT ON THE NEXT 12 PAGES

Note: Most of the keyswitch banks have exactly the same mapping. In some cases only the play mode changes from bank to bank or the play range is reduced to make place for additional picking keys for example. The only exception is the natural harmonic bank which doesn't have any keyswitches or trigger keys above C7.

Red keys in the following lists mark keyswitches and trigger keys outside the typical range of a 88 note keyboard. Those are meant for sequencing/ programming after you have recorded your MIDI.

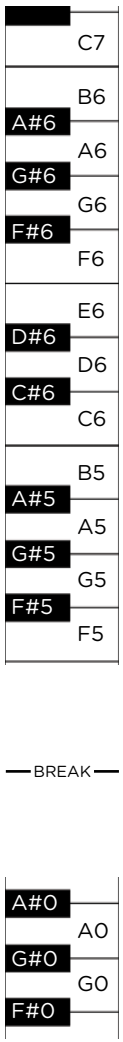
KEYSWITCHS BANK 01 (C0)
Polyphonic | Full Playrange



B7 - Pick | Chord Note 6 (highest) - Trigger Key
A#7 - Mute | Palm - Trigger Key
A7 - Pick | Chord Note 5 - Trigger Key
G#7 - Slide | Up | 2 Frets - Trigger Key
G7 - Pick | Chord Note 4 - Trigger Key
F#7 - Slide | Up | 1 Fret - Trigger Key
F7 - Pick | Chord Note 3 - Trigger Key
E7 - Pick | Chord Note 2 - Trigger Key
D#7 - Slide | Dn | 1 Fret - Trigger Key
D7 - Pick | Chord Note 1 - Trigger Key
C#7 - Slide | Dn | 2 Frets - Trigger Key

B-1 - Release | Open String - Keyswitch Forced
A#-1 - Release | Slide - Keyswitch Forced
A-1 - Release | Pick - Keyswitch Forced
G#-1 - Release | Buzz - Keyswitch Forced
G-1 - Release | Finger - Keyswitch Forced
F#-1 - Play On Last String - Keyswitch Forced
F-1 - Fx Neck Strum | Up - Trigger Key
E-1 - Fx Neck Strum | Down - Trigger Key
D#-1 - Hit | Finger Pos 3 - Trigger Key
D-1 - Hit | Finger Pos 2 - Trigger Key
C#-1 - Hit | Finger Pos 1 - Trigger Key
C-1 - Hit | Slap Pos 3 - Trigger Key
B-2 - Hit | Slap Pos 2 - Trigger Key
A#-2 - Hit | Slap Pos 1 - Trigger Key
A-2 - Hit | Knock Pos 3 - Trigger Key
G#-2 - Hit | Knock Pos 2 - Trigger Key
G-2 - Hit | Knock Pos 1 - Trigger Key

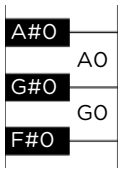
F-2 - Play On String 1 - Keyswitch Forced
E-2 - Play On String 2 - Keyswitch Forced
D#-2 - Play On String 3 - Keyswitch Forced
D-2 - Play On String 4 - Keyswitch Forced
C#-2 - Play On String 5 - Keyswitch Forced
C-2 - Play On String 6 - Keyswitch Forced



C7 - Slide Noise | Up - Trigger Key
B6 - Slide Noise | Dn - Trigger Key
A#6 - Hit | Slap Pos 2 - Trigger Key
A6 - Hit | Slap Pos 1 - Trigger Key
G#6 - Mute | String Slap Pos 2 - Trigger Key
G6 - Mute | String Slap Pos 1 - Trigger Key
F#6 - Chuck | Up - Trigger Key
F6 - Chuck | Down - Trigger Key
E6 - Mute - Trigger Key
D#6 - Open String + Slide Noise | Up - Trigger Key
D6 - Open String + Slide Noise | Dn - Trigger Key
C#6 - Open String | Strum | Up - Trigger Key
C6 - Strum | Lower 1/4 | Down - Trigger Key
B5 - Strum | Upper 1/4 | Down - Trigger Key
A#5 - Strum | Upper 1/4 | Up - Trigger Key
A5 - Strum | Upper 1/2 | Down - Trigger Key
G#5 - Strum | Upper 2/3 | Up - Trigger Key
G5 - Strum | Lower 2/3 | Down - Trigger Key
F#5 - Strum | Full | Up - Trigger Key
F5 - Strum | Full | Down - Trigger Key

A#0 - Slide In - Keyswitch Forced
A0 - Palm Muted – Keyswitch or Sustain Nail – Keyswitch (depends on instrument)
G#0 - Pull Off - Keyswitch Forced
G0 - Sustain - Keyswitch
F#0 - Hammer On - Keyswitch Forced

KEYSWITCHS BANK 02 (C#0)
Polyphonic | Min. Playrange | Inc. Harmonics



A#0 - Slide In - Keyswitch Forced

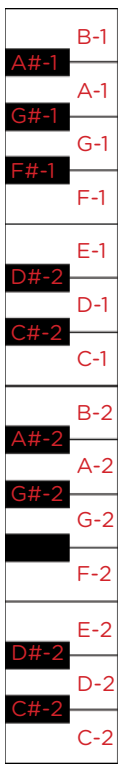
A0 - Palm Muted – Keyswitch or Sustain Nail – Keyswitch (depends on instrument)

G#0 - Pull Off - Keyswitch Forced

G0 - Sustain - Keyswitch

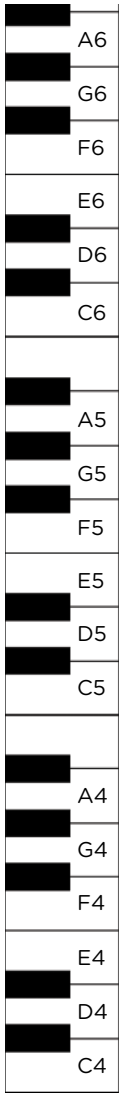
F#0 - Hammer On - Keyswitch Forced

BREAK



B-1 - Release | Open String - Keyswitch Forced
A#-1 - Release | Slide - Keyswitch Forced
A-1 - Release | Pick - Keyswitch Forced
G#-1 - Release | Buzz - Keyswitch Forced
G-1 - Release | Finger - Keyswitch Forced
F#-1 - Play On Last String - Keyswitch Forced
F-1 - Fx Neck Strum | Up - Trigger Key
E-1 - Fx Neck Strum | Down - Trigger Key
D#-1 - Hit | Finger Pos 3 - Trigger Key
D-1 - Hit | Finger Pos 2 - Trigger Key
C#-1 - Hit | Finger Pos 1 - Trigger Key
C-1 - Hit | Slap Pos 3 - Trigger Key
B-2 - Hit | Slap Pos 2 - Trigger Key
A#-2 - Hit | Slap Pos 1 - Trigger Key
A-2 - Hit | Knock Pos 3 - Trigger Key
G#-2 - Hit | Knock Pos 2 - Trigger Key
G-2 - Hit | Knock Pos 1 - Trigger Key

F-2 - Play On String 1 - Keyswitch Forced
E-2 - Play On String 2 - Keyswitch Forced
D#-2 - Play On String 3 - Keyswitch Forced
D-2 - Play On String 4 - Keyswitch Forced
C#-2 - Play On String 5 - Keyswitch Forced
C-2 - Play On String 6 - Keyswitch Forced

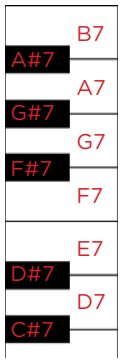


A6 - Natural Harm. Fret 12 | String 1 - Trigger Key
G6 - Natural Harm. Fret 12 | String 2 - Trigger Key
F6 - Natural Harm. Fret 12 | String 3 - Trigger Key
E6 - Natural Harm. Fret 12 | String 4 - Trigger Key
D6 - Natural Harm. Fret 12 | String 5 - Trigger Key
C6 - Natural Harm. Fret 12 | String 6 - Trigger Key

A5 - Natural Harm. Fret 7 | String 1 - Trigger Key
G5 - Natural Harm. Fret 7 | String 2 - Trigger Key
F5 - Natural Harm. Fret 7 | String 3 - Trigger Key
E5 - Natural Harm. Fret 7 | String 4 - Trigger Key
D5 - Natural Harm. Fret 7 | String 5 - Trigger Key
C5 - Natural Harm. Fret 7 | String 6 - Trigger Key

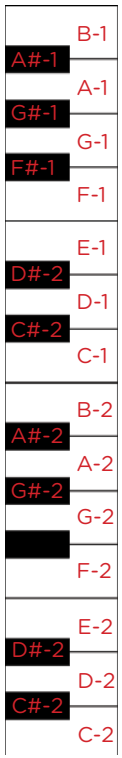
A4 - Natural Harm. Fret 5 | String 1 - Trigger Key
G4 - Natural Harm. Fret 5 | String 2 - Trigger Key
F4 - Natural Harm. Fret 5 | String 3 - Trigger Key
E4 - Natural Harm. Fret 5 | String 4 - Trigger Key
D4 - Natural Harm. Fret 5 | String 5 - Trigger Key
C4 - Natural Harm. Fret 5 | String 6 - Trigger Key

KEYSWITCHS BANK 03 (D0)
Polyphonic | Reduced Playrange | Inc. Pick Trigger Keys



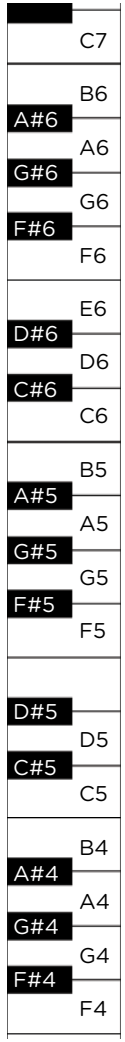
B7 - Pick | Chord Note 6 (highest) - Trigger Key
A#7 - Mute | Palm - Trigger Key
A7 - Pick | Chord Note 5 - Trigger Key
G#7 - Slide | Up | 2 Frets - Trigger Key
G7 - Pick | Chord Note 4 - Trigger Key
F#7 - Slide | Up | 1 Fret - Trigger Key
F7 - Pick | Chord Note 3 - Trigger Key
E7 - Pick | Chord Note 2 - Trigger Key
D#7 - Slide | Dn | 1 Fret - Trigger Key
D7 - Pick | Chord Note 1 - Trigger Key
C#7 - Slide | Dn | 2 Frets - Trigger Key

BREAK



B-1 - Release | Open String - Keyswitch Forced
A#-1 - Release | Slide - Keyswitch Forced
A-1 - Release | Pick - Keyswitch Forced
G#-1 - Release | Buzz - Keyswitch Forced
G-1 - Release | Finger - Keyswitch Forced
F#-1 - Play On Last String - Keyswitch Forced
F-1 - Fx Neck Strum | Up - Trigger Key
E-1 - Fx Neck Strum | Down - Trigger Key
D#-1 - Hit | Finger Pos 3 - Trigger Key
D-1 - Hit | Finger Pos 2 - Trigger Key
C#-1 - Hit | Finger Pos 1 - Trigger Key
C-1 - Hit | Slap Pos 3 - Trigger Key
B-2 - Hit | Slap Pos 2 - Trigger Key
A#-2 - Hit | Slap Pos 1 - Trigger Key
A-2 - Hit | Knock Pos 3 - Trigger Key
G#-2 - Hit | Knock Pos 2 - Trigger Key
G-2 - Hit | Knock Pos 1 - Trigger Key

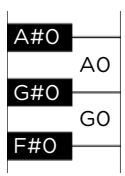
F-2 - Play On String 1 - Keyswitch Forced
E-2 - Play On String 2 - Keyswitch Forced
D#-2 - Play On String 3 - Keyswitch Forced
D-2 - Play On String 4 - Keyswitch Forced
C#-2 - Play On String 5 - Keyswitch Forced
C-2 - Play On String 6 - Keyswitch Forced



C7 - Slide Noise | Up - Trigger Key
B6 - Slide Noise | Dn - Trigger Key
A#6 - Hit | Slap Pos 2 - Trigger Key
A6 - Hit | Slap Pos 1 - Trigger Key
G#6 - Mute | String Slap Pos 2 - Trigger Key
G6 - Mute | String Slap Pos 1 - Trigger Key
F#6 - Chuck | Up - Trigger Key
F6 - Chuck | Down - Trigger Key
E6 - Mute - Trigger Key
D#6 - Open String + Slide Noise | Up - Trigger Key
D6 - Open String + Slide Noise | Dn - Trigger Key
C#6 - Open String | Strum | Up - Trigger Key
C6 - Strum | Lower 1/4 | Down - Trigger Key
B5 - Strum | Upper 1/4 | Down - Trigger Key
A#5 - Strum | Upper 1/4 | Up - Trigger Key
A5 - Strum | Upper 1/2 | Down - Trigger Key
G#5 - Strum | Upper 2/3 | Up - Trigger Key
G5 - Strum | Lower 2/3 | Down - Trigger Key
F#5 - Strum | Full | Up - Trigger Key
F5 - Strum | Full | Down - Trigger Key

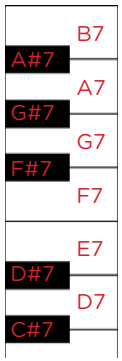
D5 - Pick | Chord Note 6 (highest) - Trigger Key
C#5 - Slide | Up | 2 Frets - Trigger Key
C5 - Pick | Chord Note 5 - Trigger Key
B4 - Pick | Chord Note 4 - Trigger Key
A#4 - Slide | Up | 1 Fret - Trigger Key
A4 - Pick | Chord Note 3 - Trigger Key
G#4 - Slide | Dn | 1 Fret - Trigger Key
G4 - Pick | Chord Note 2 - Trigger Key
F#4 - Slide | Dn | 2 Frets - Trigger Key
F4 - Pick | Chord Note 1 - Trigger Key

BREAK



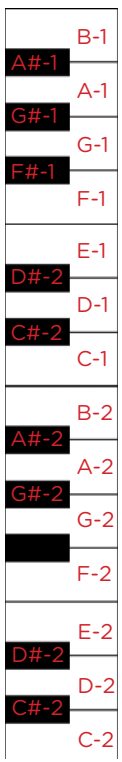
A#0 - Slide In - Keyswitch Forced
A0 - Palm Muted – Keyswitch or Sustain Nail – Keyswitch (depends on instrument)
G#0 - Pull Off - Keyswitch Forced
G0 - Sustain - Keyswitch
F#0 - Hammer On - Keyswitch Forced

KEYSWITCHS BANK 04 (D#0)
Polyphonic | Tremolo | Full Playrange



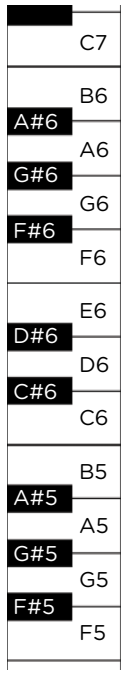
B7 - Pick | Chord Note 6 (highest) - Trigger Key
A#7 - Mute | Palm - Trigger Key
A7 - Pick | Chord Note 5 - Trigger Key
G#7 - Slide | Up | 2 Frets - Trigger Key
G7 - Pick | Chord Note 4 - Trigger Key
F#7 - Slide | Up | 1 Fret - Trigger Key
F7 - Pick | Chord Note 3 - Trigger Key
E7 - Pick | Chord Note 2 - Trigger Key
D#7 - Slide | Dn | 1 Fret - Trigger Key
D7 - Pick | Chord Note 1 - Trigger Key
C#7 - Slide | Dn | 2 Frets - Trigger Key

BREAK



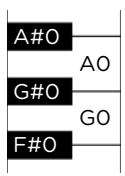
B-1 - Release | Open String - Keyswitch Forced
A#-1 - Release | Slide - Keyswitch Forced
A-1 - Release | Pick - Keyswitch Forced
G#-1 - Release | Buzz - Keyswitch Forced
G-1 - Release | Finger - Keyswitch Forced
F#-1 - Play On Last String - Keyswitch Forced
F-1 - Fx Neck Strum | Up - Trigger Key
E-1 - Fx Neck Strum | Down - Trigger Key
D#-1 - Hit | Finger Pos 3 - Trigger Key
D-1 - Hit | Finger Pos 2 - Trigger Key
C#-1 - Hit | Finger Pos 1 - Trigger Key
C-1 - Hit | Slap Pos 3 - Trigger Key
B-2 - Hit | Slap Pos 2 - Trigger Key
A#-2 - Hit | Slap Pos 1 - Trigger Key
A-2 - Hit | Knock Pos 3 - Trigger Key
G#-2 - Hit | Knock Pos 2 - Trigger Key
G-2 - Hit | Knock Pos 1 - Trigger Key

F-2 - Play On String 1 - Keyswitch Forced
E-2 - Play On String 2 - Keyswitch Forced
D#-2 - Play On String 3 - Keyswitch Forced
D-2 - Play On String 4 - Keyswitch Forced
C#-2 - Play On String 5 - Keyswitch Forced
C-2 - Play On String 6 - Keyswitch Forced



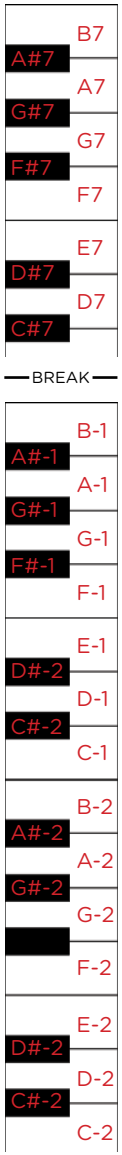
C7 - Slide Noise | Up - Trigger Key
B6 - Slide Noise | Dn - Trigger Key
A#6 - Hit | Slap Pos 2 - Trigger Key
A6 - Hit | Slap Pos 1 - Trigger Key
G#6 - Mute | String Slap Pos 2 - Trigger Key
G6 - Mute | String Slap Pos 1 - Trigger Key
F#6 - Chuck | Up - Trigger Key
F6 - Chuck | Down - Trigger Key
E6 - Mute - Trigger Key
D#6 - Open String + Slide Noise | Up - Trigger Key
D6 - Open String + Slide Noise | Dn - Trigger Key
C#6 - Open String | Strum | Up - Trigger Key
C6 - Strum | Lower 1/4 | Down - Trigger Key
B5 - Strum | Upper 1/4 | Down - Trigger Key
A#5 - Strum | Upper 1/4 | Up - Trigger Key
A5 - Strum | Upper 1/2 | Down - Trigger Key
G#5 - Strum | Upper 2/3 | Up - Trigger Key
G5 - Strum | Lower 2/3 | Down - Trigger Key
F#5 - Strum | Full | Up - Trigger Key
F5 - Strum | Full | Down - Trigger Key

BREAK



A#0 - Slide In - Keyswitch Forced
A0 - Palm Muted – Keyswitch or Sustain Nail – Keyswitch (depends on instrument)
G#0 - Pull Off - Keyswitch Forced
G0 - Sustain - Keyswitch
F#0 - Hammer On - Keyswitch Forced

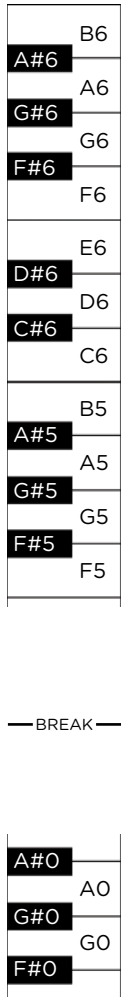
KEYSWITCHS BANK 05 (E0)
Legato | HO/PO | Full Playrange



B7 - Pick | Chord Note 6 (highest) - Trigger Key
A#7 - Mute | Palm - Trigger Key
A7 - Pick | Chord Note 5 - Trigger Key
G#7 - Slide | Up | 2 Frets - Trigger Key
G7 - Pick | Chord Note 4 - Trigger Key
F#7 - Slide | Up | 1 Fret - Trigger Key
F7 - Pick | Chord Note 3 - Trigger Key
E7 - Pick | Chord Note 2 - Trigger Key
D#7 - Slide | Dn | 1 Fret - Trigger Key
D7 - Pick | Chord Note 1 - Trigger Key
C#7 - Slide | Dn | 2 Frets - Trigger Key

B-1 - Release | Open String - Keyswitch Forced
A#-1 - Release | Slide - Keyswitch Forced
A-1 - Release | Pick - Keyswitch Forced
G#-1 - Release | Buzz - Keyswitch Forced
G-1 - Release | Finger - Keyswitch Forced
F#-1 - Play On Last String - Keyswitch Forced
F-1 - Fx Neck Strum | Up - Trigger Key
E-1 - Fx Neck Strum | Down - Trigger Key
D#-1 - Hit | Finger Pos 3 - Trigger Key
D-1 - Hit | Finger Pos 2 - Trigger Key
C#-1 - Hit | Finger Pos 1 - Trigger Key
C-1 - Hit | Slap Pos 3 - Trigger Key
B-2 - Hit | Slap Pos 2 - Trigger Key
A#-2 - Hit | Slap Pos 1 - Trigger Key
A-2 - Hit | Knock Pos 3 - Trigger Key
G#-2 - Hit | Knock Pos 2 - Trigger Key
G-2 - Hit | Knock Pos 1 - Trigger Key

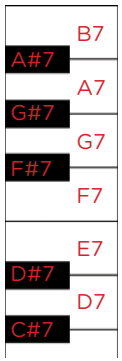
F-2 - Play On String 1 - Keyswitch Forced
E-2 - Play On String 2 - Keyswitch Forced
D#-2 - Play On String 3 - Keyswitch Forced
D-2 - Play On String 4 - Keyswitch Forced
C#-2 - Play On String 5 - Keyswitch Forced
C-2 - Play On String 6 - Keyswitch Forced



B6 - Slide Noise | Dn - Trigger Key
A#6 - Hit | Slap Pos 2 - Trigger Key
A6 - Hit | Slap Pos 1 - Trigger Key
G#6 - Mute | String Slap Pos 2 - Trigger Key
G6 - Mute | String Slap Pos 1 - Trigger Key
F#6 - Chuck | Up - Trigger Key
F6 - Chuck | Down - Trigger Key
E6 - Mute - Trigger Key
D#6 - Open String + Slide Noise | Up - Trigger Key
D6 - Open String + Slide Noise | Dn - Trigger Key
C#6 - Open String | Strum | Up - Trigger Key
C6 - Strum | Lower 1/4 | Down - Trigger Key
B5 - Strum | Upper 1/4 | Down - Trigger Key
A#5 - Strum | Upper 1/4 | Up - Trigger Key
A5 - Strum | Upper 1/2 | Down - Trigger Key
G#5 - Strum | Upper 2/3 | Up - Trigger Key
G5 - Strum | Lower 2/3 | Down - Trigger Key
F#5 - Strum | Full | Up - Trigger Key
F5 - Strum | Full | Down - Trigger Key

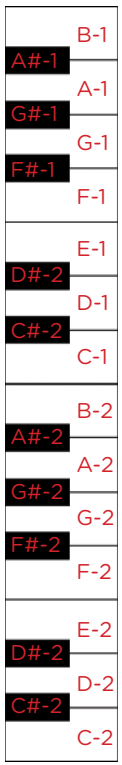
A#0 - Slide In - Keyswitch Forced
A0 - Palm Muted – Keyswitch or Sustain Nail – Keyswitch (depends on instrument)
G#0 - Play Slide Forced
G0 - Sustain - Keyswitch
F#0 - Play On Last String Forced

KEYSWITCHS BANK 06 (F0)
Legato | SU/SD | Full Playrange



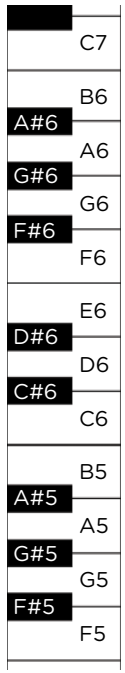
B7 - Pick | Chord Note 6 (highest) - Trigger Key
A#7 - Mute | Palm - Trigger Key
A7 - Pick | Chord Note 5 - Trigger Key
G#7 - Slide | Up | 2 Frets - Trigger Key
G7 - Pick | Chord Note 4 - Trigger Key
F#7 - Slide | Up | 1 Fret - Trigger Key
F7 - Pick | Chord Note 3 - Trigger Key
E7 - Pick | Chord Note 2 - Trigger Key
D#7 - Slide | Dn | 1 Fret - Trigger Key
D7 - Pick | Chord Note 1 - Trigger Key
C#7 - Slide | Dn | 2 Frets - Trigger Key

BREAK



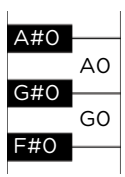
B-1 - Release | Open String - Keyswitch Forced
A#-1 - Release | Slide - Keyswitch Forced
A-1 - Release | Pick - Keyswitch Forced
G#-1 - Release | Buzz - Keyswitch Forced
G-1 - Release | Finger - Keyswitch Forced
F#-1 - Play On Last String - Keyswitch Forced
F-1 - Fx Neck Strum | Up - Trigger Key
E-1 - Fx Neck Strum | Down - Trigger Key
D#-1 - Hit | Finger Pos 3 - Trigger Key
D-1 - Hit | Finger Pos 2 - Trigger Key
C#-1 - Hit | Finger Pos 1 - Trigger Key
C-1 - Hit | Slap Pos 3 - Trigger Key
B-2 - Hit | Slap Pos 2 - Trigger Key
A#-2 - Hit | Slap Pos 1 - Trigger Key
A-2 - Hit | Knock Pos 3 - Trigger Key
G#-2 - Hit | Knock Pos 2 - Trigger Key
G-2 - Hit | Knock Pos 1 - Trigger Key

F-2 - Play On String 1 - Keyswitch Forced
E-2 - Play On String 2 - Keyswitch Forced
D#-2 - Play On String 3 - Keyswitch Forced
D-2 - Play On String 4 - Keyswitch Forced
C#-2 - Play On String 5 - Keyswitch Forced
C-2 - Play On String 6 - Keyswitch Forced



C7 - Slide Noise | Up - Trigger Key
B6 - Slide Noise | Dn - Trigger Key
A#6 - Hit | Slap Pos 2 - Trigger Key
A6 - Hit | Slap Pos 1 - Trigger Key
G#6 - Mute | String Slap Pos 2 - Trigger Key
G6 - Mute | String Slap Pos 1 - Trigger Key
F#6 - Chuck | Up - Trigger Key
F6 - Chuck | Down - Trigger Key
E6 - Mute - Trigger Key
D#6 - Open String + Slide Noise | Up - Trigger Key
D6 - Open String + Slide Noise | Dn - Trigger Key
C#6 - Open String | Strum | Up - Trigger Key
C6 - Strum | Lower 1/4 | Down - Trigger Key
B5 - Strum | Upper 1/4 | Down - Trigger Key
A#5 - Strum | Upper 1/4 | Up - Trigger Key
A5 - Strum | Upper 1/2 | Down - Trigger Key
G#5 - Strum | Upper 2/3 | Up - Trigger Key
G5 - Strum | Lower 2/3 | Down - Trigger Key
F#5 - Strum | Full | Up - Trigger Key
F5 - Strum | Full | Down - Trigger Key

BREAK



A#0 - Slide In - Keyswitch Forced
A0 - Palm Muted – Keyswitch or Sustain Nail – Keyswitch (depends on instrument)
G#0 - Play Slide Forced
G0 - Sustain - Keyswitch
F#0 - Play On Last String Forced

CHAPTER 07

Acou6tics/ PLAYBACK

PLAYBACK | STRUM | PICK

PAGE 1

Pick Direction

Change the pick direction here.

- Auto: Alternates between up and down pick directions.
- Down: Downstrokes only.
- Up: Upstrokes only.

Pick Position

Change the pick position from 100% neck to 100% bridge here. This results in different timbres. A warmer tone is found in the neck and a more percussive, metallic tone, is found in the bridge.

Strum Direction

Change the strum direction for chords that are played in the natural range of the keyboard (i.e. not the trigger keys) here.

- Auto: Alternating between up and downstrokes.
- Down: Downstrokes only.
- Up: Upstrokes only.

Strum Type

Change the range of strings played for chords which are played with the keyboard (not the trigger keys) here.

Strum Speed

Change the strum speed here. In Acou6tics, strum speed means the duration it takes to strum from one string to the next. A full six string strum will take 60ms if you set strum speed to 10ms. To play picked patterns we recommend turning the strum knob all the way to the left. The text, “Picked”, will appear next to the knob.

Strum Voicing

Manually overwrite the automatically selected voicing here.

PLAYBACK | LEGATO MODE

When switching to a **Legato Mode** bank a few of the knob controls change and are listed below.

Legato X-Fade

Higher values will smooth the transitions (more crossfade), lower values will leave more attack.

Legato S-Start

Higher values will remove more of the attack portion of the legato samples, lower values leave more of the attack portion.

CHAPTER 07 ACOU6TICS PLAYBACK CONT'D

PAGE 1 CONT'D

Legato Slide In

You can setup the velocity threshold for the slide-ins here. If you play a note with a velocity higher than this threshold a slide-in is played if physically possible on the fretboard.

Legato <> Range

This allows you to setup what the legato engine is playing when you play a legato note outside the hammer on/pull off range (which can be setup on the **Advanced Settings Page | Legato Setup**). If you set it to **Start Art**. (Start Articulation) the start articulation for a new legato phrase is selected. If you set it to **Allow Slide** a slide is played instead.

PAGE 2

Select String

Select a specific string you want to play on. Acou6tics tries to play on this string as long as it's physically possible.

Select Fret

Select a certain fret on the fretboard you want to play on. Acou6tics tries to play in this position as long as it's physically possible.

Volume Noises

This is the master volume knob for all noises: pre-pick noise, strum noise and slide noise.

Volume Releases

This is the master volume knob for all release noises.

Vibrato Speed

Change or automate the vibrato speed here.

Vibrato Strength

Change or automate the vibrato strength here. This knob is controlled via CC1 (Modwheel).

Note: You can easily automate all the knobs on the playback page by right clicking on them and changing the CC you want to assign to the designated knob. For example: to assign '**Select Fret**' to CC11, right click on the '**Select Fret**' knob, play a CC11 controller change in your sequencer or rotate the knob you assigned to CC11 on your MIDI keyboard.

You shouldn't assign CC1 (modwheel) or CC64 (sustain pedal) to any of the knobs, because CC1 is controlling vibrato strength/velocity in tremolo mode and CC64 is used as sustain pedal.

CHAPTER 08

Acou6tics/ ADVANCED SETUP

ADVANCED SETUP

Automation:

Easily automate all the settings (except menus) by right clicking on them and changing the CC you want to assign to the slider or button here. For example: You want to assign '**Strum Time | Auto Adjust**' to CC11. Right click on the '**Strum Time | Auto Adjust**' slider (as displayed in the picture above). After that either play a CC11 controller change in your sequencer or rotate the knob you assigned to CC11 on your MIDI keyboard.

Note: You shouldn't assign CC1 (modwheel) or CC64 (sustain pedal) to any of the slider / buttons, because CC1 is controlling vibrato strength / velocity in tremolo mode, and CC64 is used as sustain pedal.

Quick Preset:

The Quick Presets allow you to quickly tweak parameters of Acou6tics without having to go through all the advanced settings. In this menu you'll see exactly which settings are affected by the preset you have selected.

CHAPTER 09

Acou6tics/Advanced Setup PLAYBACK SETUP

PLAYBACK SETUP | SIMULATION

Simulation | CPU:

Enables or disables features of the Acou6tics engine to make it sound more realistic or to make it more efficient.

• Offline | Strum/Pick: ON | Pick Position: ON | Symp. Reso.: CORRECT | String X-Fade: MAX (10000 ms)

• High | Strum/Pick: ON | Pick Position: ON | Symp. Reso.: EASY | String X-Fade: MAX (10000 ms)

• Medium | Strum/Pick: ON | Pick Position: ON | Symp. Reso.: OFF | String X-Fade: MED (7500 ms)

• Low | Strum/Pick: ON | Pick Position: OFF | Symp. Reso.: OFF | String X-Fade: MED (7500 ms)

• Minimum | Strum/Pick: OFF | Pick Position: OFF | Symp. Reso.: OFF | String X-Fade: MIN (5000ms)

Simulation | String X-Fade (Sustain Build Up):

Setup the amount of sustain build up here. High values mean more voices will be played, lower values mean less voices will be played. Experiment with this setting until it sounds right. If you have a track at a high tempo try values below the default, if you have a track at a very slow tempo, try lower values.

Simulation | Pick Position:

• Off: Disables the pick position simulation.

• Normal: Enables the pick position simulation.

• High: Enables the pick position simulation and adds more variation, but with a bit more phasing.

Simulation | Auto Sustain:

•Off: No auto sustain.

• Strum Trigger Keys: Pressing the strum keys automatically adds the sustain pedal as long as a strum key is pressed.

• Pick Trigger Keys: Pressing the pick keys automatically adds the sustain pedal as long as a pick key is pressed.

• Strum + Pick Trigger Keys: Pressing the pick/strum keys automatically adds the sustain pedal as long as a pick/strum key is pressed.

Simulation | Bad Strum Noises:

Bad strum notes are sustain notes which have been recorded with more string buzz. They happen on a real guitar if a string isn't fully pressed down, which often occurs when fingering chords.

• Off: no bad strum notes.

• Lower | only on chord changes: lower amount of bad strum notes and they occur only on chord changes.

• Low | only on chord changes: low amount of bad strum notes and they occur only on chord changes

• High: high amount of bad strum notes.

• Higher: higher amount of bad strum notes.

Simulation | Double Tracking:

If you want to do double tracking, load two instances of the same guitar, then set one guitar to '**First Guitar**' and the other one to '**Second Guitar**'. This helps to eliminate phasing between two instances of the same guitar.

Simulation | Sympathetic Resonance:

String instruments have a characteristic behavior called "Sympathetic Resonance". The string you plucked last will sound and its vibration will make the other strings resonate as well. This results in an fuller tone and sometimes adds a little disharmony, which is very characteristic for chord playing on a guitar. You can set up the strength of the sympathetic resonance between 0 and 100% here.

PLAYBACK SETUP | TIME

Time | Tremolo Speed:

You can set up the tremolo speed anywhere between quarter notes and 1/64 triplet notes.

Time | Delay | Remove (pre-attack portion):

On a real guitar a lot of noise happens between hitting the string and plucking it with the finger or the plectrum (for example a bit of scratching). This noise hasn't been trimmed from the samples because it adds a lot of realism, however, it will add a bit of delay to the samples (maximum of 15ms). For real-time playing we suggest removing the pre-attack portion, and for bouncing a track we suggest adding the maximum amount for more realism.

Time | Delay | Add | Pick (between noise and note):

On a real guitar a short 'ping noise' may occur when the plectrum is hitting the string, for example, and there is a short delay between this 'ping noise' and the attack of the sample. You can set up this delay time here. For real-time playing we suggest removing the delay completely, and for bouncing a track we suggest adding the maximum amount of delay for more realism. Note: also string slide noises occur in this time window, so they are much more audible when you add more delay and they will sound much more realistic.

Time | Delay | Max | Strum (between note and noise):

On a real guitar the strum noises occur slightly after you picked a string, because they happen when you move up or down from string to string with your fingers or with your plectrum. This setting is the maximum amount of delay time between the attack of the samples and the strum noise.

Time | Release Note| Fade Out:

Set up the release note fade out time here. The longer the fade out time the more the release sample will overlap with the next note. If you are playing a very fast guitar part, you can try reducing it to about 50 or 60ms. If you are playing a very slow part, you can try raising the delay time to 200ms or more. The differences are very subtle, but for maximum realism it's worth experimenting with this setting.

Time | Release Note | Delay Compensation:

This is a very important setting since it affects the way the engine works quite a bit. If you take a look at all the 'time' settings described above, you'll see that a lot of them add pre-delay to the engine. Per default, Acou6tics compensates for this delay at the release of a note. So if you release a note, the same amount delay is added before the release happens as it was added before the note has been played back. That allows you to easily adjust for the added delay in your sequencer (by adding a negative delay to your track). The '**Delay Compensation**' setting allows you do adjust the engine to your needs. If you don't like the way the delay feels at release you can simply remove it. This however, makes it necessary to use the sustain pedal much more often since the engine can't detect overlapping notes anymore.

• Off | Repetitions won't connect automatically, need sustain pedal.

• Full | Compensate for pre-attack portion and delay between pick noise and note.

• Pre-Attack | Compensate for pre-attack portion.

• Add Delay | Compensate for delay between pick noise and note.

CHAPTER 10

Acou6tics/Advanced Setup STRING SETUP

STRING SETUP | STRINGS

Strings | Tuning:

You can change the tuning of the guitar (from default E-Tuning down to B-Tuning) here.

Strings | Capo:

You can set up a virtual capo here. **Note**: this affects your learned chords. For example: If you set up a chord library with no capo and you add a capo later, you'll need to learn your custom chords again.

Strings | Behavior:

• Realistic: **Note**: Only works with chord detection > 0ms!

• Polyphonic: Make strings polyphonic. **Note**: May not sound realistic and fretboard display is turned off. On a real guitar you can only play one note at a time on each string. So a six string guitar has a maximum polyphony of 6. If you want to use Acou6tics like a traditional sampling instrument with no artificial intelligence for string placement, strumming etc., simply set this setting to '**Polyphonic**'.

Strings | Placement:

Two placement options: **By AI** or **By MIDI Channel**.

If you set this to '**By MIDI Channel**' you'll also need to set the instrument MIDI input to '**Omni**'. After you have done this, you'll be able to select strings via MIDI channel. So all notes played on MIDI channel 1 are played on string 1 (highest string), and all notes played on MIDI channel 6 are played on string 6 (lowest string). This is not suitable for real-time playing, but will allow you full control over the string placement when programming MIDI parts.

Strings | Placement | Mode:

Switch between a '**Dynamic**' mode or '**Static**' string selection mode here. If you chose '**Dynamic**', consider that most notes in the play range of a guitar can be played on more than one string. A#1, for example, can be played on the 6th string on the 6th fret or on the 5th string on the first fret so it was necessary to develop an algorithm that chooses the best fitting string according to your playing. This means that if you play A#1, it won't always sound exactly the same. If you don't like the idea that most keys will produce different timbres in different situations, you can switch to '**Static**' mode. That way each note on the keyboard will always be played on the same fret on the fretboard.

• Dynamic (only works with chord dectection > 0ms!

• Static

Strings | Placement | Reset Time:

If a note is held longer than the threshold time set here before the next note is played, the position on the virtual fretboard is reset. So next time you play a note it's played in the lowest possible position again.

CHAPTER 11

Acou6tics/Advanced Setup CHORD SETUP

CHORD SETUP | CHORD

Chord | Detect Time:

0ms = Detect Time is OFF

Usually when a chord is played on the keyboard, not all keys are pressed at the same time. To compensate for this variance and to correctly detect a chord, the engine has to wait for all chord notes to arrive. By default this time is 25ms, but it can be lowered if your chord playing is very accurate, or for faster tempos.

CHORD SETUP | AUTO VOICING

Auto Voicing | Allow String Skipping:

Enable this to simulate how chords would be played by a real guitarist.

Auto Voicing | Extend Chords:

Acou6tics can automatically translate keyboard-voiced chords into guitar-voiced chords. You can turn this feature on or off here. If you turn '**Extend Chords**' off, your chords aren't translated to guitar chords, but of course they are still transferred to the best fitting position on the virtual fretboard.

Auto Voicing | Extend Chords | Keep Root Note:

Select guitar chord voicings which have the same root note as the chord you are playing on your keyboard.

Auto Voicing | Extend Chords | Prefer Barred Chords:

Prefer barred chords over chords which have open strings in them when playing in higher positions on the fretboard.

CHORD SETUP | SELECT BEST VOICING

Acou6tics has a guitar chord library with up to 50 different voicings per chord. The engine tries to select the best fitting chord in real-time, depending on different parameters. You can set up the importance of those parameters with this setting.

Select Best Voicing | Keyboard Octave:

Chords played in higher octaves will move the guitar voicing up on the fretboard. For example, Cmaj in the lowest octave will be played with an open voicing and Cmaj in the highest octave will be played as a barred chord on fret 12.

Select Best Voicing | By Chord Shape:

Prefer easier to play chord shapes over more complex ones.

Select Best Voicing | By Number of Strings:

Prefer voicings which are played on more strings over voicings played on less strings. E.g. prefer a six string chord over a four string chord.

Select Best Voicing | By Last Position:

Prefer voicings which are played within the same position on the fretboard you've played your last chord in.

CHAPTER 12

Acou6tics/Advanced Setup NOISE SETUP

NOISE SETUP | PICKING VOLUME

Volume | Pick Noise:

Control the amount of pre-pick noise here. Pre-pick noise is noise that happens before the actual note is played. The plectrum scratches the string which produces some noise. This noise is barely audible but it also adds another subtle factor for realism. **Note**: All noises add to the polyphony count so if you have a less powerful CPU you can turn them off to minimize CPU consumption.

Volume | Slide Noise:

Slide noise happens when you move your hand along the fretboard to reposition your hand. Adjust the amount of this slide noise here. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

Volume | Hit Next String Noise:

You can setup the volume of the noise that sometimes happens when plucking a string and hitting the next string.

Volume | Release Noise:

Release noise happens when you lift your fingers from the fretboard to reposition your hand after playing a note. Adjust the amount of this release noise here. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

Volume | Open String Noise:

When lifting your left hand to reposition, sometimes you produce a light open string noise (like a very quiet pull off). You can specify the amount of this open string noise here. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

PICKING | PROBABILITY

Pick Noise, **Slide Noise** and **Hit Next String Noise** allow you to set up how often a certain noise occurs. 100% means all the time, 50% would cause the noise to sound only on 50% of notes. With **If Velocity >** you can set up a velocity threshold here. The **Next Hit String Noise** will only occur when you play a note with a higher velocity than your threshold.

PICKING | RELEASE NOISE

The **Release Noise** probability settings of **Buzz**, **Slide**, **Pick** and **Open String** allow you to set up how often a certain release noise occurs. **Note**: all release noise probabilities added together can't go higher than 100%. So if you set one to 100% all the others are automatically set to 0%.

CHORDS | VOLUME

Chords | Volume | Strum Noise:

Control the amount of strum noise here. Strum noise happens when you strum strings. Each time a string is played, the next string stops the plectrum for a very short time. The sound produced on the stop of the plectrum is the strum noise. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

Chords | Volume | Slide Noise:

Slide noise happens when you move your hand along the fretboard to reposition your hand. Adjust the amount of this slide noise here. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

Chords | Volume | Release Noise:

Release noise happens when you lift your fingers from the fretboard to reposition your hand after playing a note. Adjust the amount of this release noise here. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

Chords | Volume | Open String Noise:

When lifting your left hand to reposition, sometimes you produce a light open string noise (like a very quiet pull off). You can specify the amount of this open string noise here. **Note**: All noises will use more polyphony, so if you have a less powerful CPU, you can turn them off to minimize CPU consumption.

CHORDS | PROBABILITY

Strum Noise and **Slide Noise** allows you to set up how often a certain noise occurs. 100% means all the time, 50% for example means that only half the time a certain noise occurs when playing a note.

CHORDS | PROBABILITY | RELEASE NOISE

The **Release Noise** probability settings of **Buzz**, **Slide**, **Pick** and **Open String** allow you to set up how often a certain release noise occurs. **Note**: all release noise probabilities added together can't go higher than 100%. If you set one to 100% all the others are automatically set to 0%.

BAD NOTES |BUZZ | If Velocity >

You can setup a velocity threshold here. A buzz will only occur when you play a note with a higher velocity than your threshold.

BAD NOTES |BUZZ | VOLUME

BAD NOTES |BUZZ | PROBABILITY

You can setup up the volume and the probability of the buzz noise here.

BAD NOTES |BUZZ | DELAY

BAD NOTES |BUZZ | RANDOMIZE

You can setup up the volume and the probability of the buzz noise here.

TRIGGER | OPEN STRING | MUTE | VOLUME

When playing an open string mute key, which lifts the hand, stops the note, and plays a open string noise, a slidenoise is played. You can set up the volume of this slide noise here.

TRIGGER | OPEN STRING | MUTE | PROBABILITY

When playing a open string mute key, which lifts the hand, stops the note, and plays a open string noise, you can set up the probability for a slide noise and for an open string noise here. Setting both to 100% means that every time you play a open string mute key, both noises are played.

TRIGGER | OPEN STRING | STRUM

• Down: Set up the type of strum which is played when playing an '**open string strum down**' key here.

• Down Open Strings: Set up the amount of open strings for an '**open string strum down**' here. If you set it to 100% all strings are played open. If you set it to 90%, for example, sometimes a chord note from the last chord is strummed within the '**open string strum**', this simulates the fact that not all fingers are lifted exactly at the same moment when lifting the hand to reposition it on the fretboard.

• Up: Set up the type of strum which is played when playing an '**open string strum up**' key here.

•Up Open Strings: Set up the amount of open strings for an '**open string strum up**' here. If you set it to 100% all strings are played open. If you set it to 90%, for example, sometimes a chord note from the last chord is strummed within the '**open string strum**', this simulates the fact that not all fingers are lifted exactly at the same moment when lifting the hand to reposition it on the fretboard.

TRIGGER | MUTE STRING SLAPS

If you enable the button, the strings are muted when playing a '**Mute String Slap**' trigger key. Otherwise only the mute string slap sound is played, but the strings won't be muted.

CHAPTER 13

Acou6tics/Advanced Setup PITCHBEND & VIBRATO SETUP

Pitchbend | Range:

Change the pitch bend range here.

Vibrato | Mode:

Change the vibrato mode here.

- All Strings
- Last String | Note: Only works with chord detection = 0ms
- Highest String | Note: Only works with chord detection = 0ms
- Lowest String | Note: Only works with chord detection = 0ms

Vibrato | Curve:

Change the vibrato curve here.

Vibrato | Max:

Change the maximum strange (?) of the vibrato here.

Vibrato Speed | Min/Max:

Set up the minimum and maximum rate of the vibrato here.

Vibrato | Type:

There are 2 options for vibrato type: '**Up'** and '**Up & Down'**. On a real guitar you can only bend upwards, not downwards. So the default setting here is '**Up**', which means that the vibrato is always slightly sharp compared to traditional LFO vibrato.

CHAPTER 14

Acou6tics/Advanced Setup STRUMMING SETUP

Strum | Default:

Set up the default strum type for chords played on the keyboard here.

Strum Time | Auto Adjust:

Strum time in Acou6tics means the time difference between one string and the next in a strum. If '**Strum Time**' is set to 10ms, a strum over all six strings for example will take 60ms. '**Auto Adjust**' will automatically vary this strum time. If a six string strum takes 60ms, a four string strum will also take 60ms, because the engine automatically compensates the strum time when playing a four string strum. You can also set up the amount of '**Auto Adjust**' here. 100% means full adjustment, 10% for example, means that a four string strum will only be slightly slower than a six string strum.

DOWN-STROKE | UP-STROKE

Strum Speed | Start:

Set up the strum speed at the beginning of a strum here. If you set it to 110% and you have a strum time of 100ms, the strum speed at the beginning of the strum will be 110ms. The '**Strum Speed | Start**' and '**Strum Speed | End**' settings will allow you to accelerate or slow down a strum over time.

Strum Speed | End:

Set up the strum speed at the end of a strum here. If you set it to 90% and you have a strum time of 100ms, the strum speed at the end of the strum will be 90ms. The '**Strum Speed | Start**' and '**Strum Speed | End**' settings will allow you to accelerate or slow down a strum over time.

CHAPTER 14 ACOU6TICS STRUMMING SETUP CONT'D

Velocity Strum Speed | Min:

Here you can set up how much the velocity you play a chord with, is affecting the strum speed here. If you set '**Strum Speed | Min**' to 110% and you have a strum speed of 100ms, a chord played with the lowest velocity is played with 110ms strum speed.

Velocity Strum Speed | Max:

Here you can set up how much the velocity you play a chord with, is affecting the strum speed. If you set '**Strum Speed | Max**' to 90% and you have a strum speed of 100ms, a chord played with the highest velocity is played with 90ms strum speed.

Velocity | Start:

Set up the start velocity of a strum here. If you set it to 110% and you have a chord played with a velocity of 100, the first note in the strum will be played with a velocity of 110. If '**Velocity | End**' is set to 100% the velocity will decrease from string to string, until the last note in the strum is played with a velocity of 100.

Velocity | End:

Set up the end velocity of a strum here. If you set it to 90% and you have a chord played with a velocity of 100, the last note in the strum will be played with a velocity of 90. If '**Velocity | Start**' is set to 100% the velocity will decrease from string to string, until the last note in the strum is played with a velocity of 90.

Pick Position | Start:

Set up the pick position at the beginning of a strum here. This simulates a hand move with a slight angle when playing a strum. This starts slightly more at the neck and ends slightly more at the bridge when playing a strum.

Pick Position | End:

Set up the pick position at the end of a strum here. This simulates a hand move with a slight angle when playing a strum. This starts slightly more at the neck and ends slightly more at the bridge when playing a strum.

CHAPTER 15

Acou6tics/Advanced Setup
FINGER SETUP

Finger Setup:

'**Finger Setup**' only affects guitars that are finger picked. The setting doesn't affect the playback of guitars played with plectrum.

Finger | Mode:

With this setting you can switch the picking mode between using only the finger, and using thumb/finger for picking.

• Finger

• Thumb/Finger: thumb the low strings (except repetitions), finger the high strings.

Finger | Position:

There are 4 finger positions: **Thumb**, **Finger 1**, **Finger 2** and **Finger 3**. You can set up the picking position for each finger, simulating that all fingers are playing at slightly different positions on the string.

Finger | Threshold:

• Repetition: Set up the threshold time for repetition detection here. This is only important if '**Finger | Mode**' is set to '**Thumb/Finger**', because Acou6tics correctly switches to finger picking instead of playing with the thumb when playing fast repetitions.

• Tremolo: Set up the threshold time for tremolo detection here. When tremolo picking is detected Acou6tics automatically adds more variation to avoid the "machine gun" effect.

CHAPTER 16

Acou6tics/Advanced Setup HUMANIZE SETUP

Humanize | Pick Position:

Specify the amount of humanization of the pick position here(between neck and bridge).

Humanize | Velocity:

Specify the amount of velocity variation of each note here.

Humanize | Volume:

Set up the volume variation here.

Humanize | Timing:

Set up the timing variation here.

Strumming | Down/Up:

You can humanize the strum settings here. '**Strum Speed**' adds variation to your strum speed while '**Strum Settings**' adds variation to all the strum settings described in the '**STRUMMING SETUP**' section above.

- Strum Settings
- Strum Speed

Strings | If Strum Speed <:

Control the number of strings which are strummed when the strum speed is faster than specified here. This simulates that it's more difficult to do exact strums the faster you are playing them.

Lightly Hit | Down:

Set up to miss or lightly hit the start string of a down strum, the end string of a down strum, or both here.

- Off
- Start String
- End String
- Start & End String

Lightly Hit | Down Probability:

Set up the probability to miss or lightly hit a string while doing a down strum here.

Lightly Hit | Down Reduce Velocity (Start String/End String):

Set up amount of velocity reduction for a missed or lightly hit '**start/end**' string of a down strum here.

Lightly Hit | Up:

Set up to miss or lightly hit the start string of an up strum, the end string of an up strum, or both here.

- Off
- Start String
- End String
- Start & End String

Lightly Hit | Up Probability:

Set up the probability to miss or lightly hit a string while doing an up strum here.

Lightly Hit | Up Reduce Velocity (Start String/End String):

Set up amount of velocity reduction for a missed or lightly hit '**start/end**' string of an up strum here.

CHAPTER 16 ACOU6TICS HUMANIZE SETUP CONT'D

Strings | Add String (Down/Up):

Set up the probability to add a string while doing a strum here. For example, if you play a half strum on a six string guitar, sometimes four strings are strummed instead of three. This simulates that a real guitarist sometimes accidentally hits an additional string, especially when playing fast.

Strings | Miss String (Trigger Keys Only):

Set up the probability to completely miss a string while doing a strum with the trigger keys here. This simulates that a real guitarist sometimes accidentally misses a string, especially when playing fast.

Strings | Start String (Trigger Keys Only):

Set up the probability to vary the start string of a strum when playing the trigger keys. This simulates that a real guitarist sometimes starts a strum on different strings, especially when playing fast.

CHAPTER 17

Acou6tics/Advanced Setup
LEGATO SETUP

Legato Mode | Start Articulation:

If it's not possible to play a legato articulation like a hammer-on or a pull-off, because either the string has changed since the last note or you setup "**Max Range**", "**Max Consecutive**" or "**Max Time Difference**" in a way that limits the legato articulations, the start articulation is played.

• Current Articulation

• Current Articulation / Hammer On (current Articulation at phrase start, otherwise hammer on, even if the string changes)

•Hammer On

Legato Mode | Force Monophonic

This is a very important setting because it drastically changes how the legato mode works. If "**Force Monophonic**" is active, only one note at a time is played in legato mode and all other notes which were active before will be muted with the first legato note. If you deactivated "**Force Monophonic**" all the notes which have been played before the first legato note won't be muted. For example: this allows you to play a chord, quickly switch to legato mode, play a trill and switch back to polyphonic – without muting the chord.

Legato | Release Volume:

Turn down the volume of the release samples in legato mode here.

Legato | Retrigger:

If "**Retrigger**" is enabled, it allows you to smoothly play legato lines. If you play and hold E2 followed by F2, it will retrigger E2 as soon as you release F2.

Legato | Tone:

Add additional variation to the legato samples here by slightly changing the tone of each sample here. The "**Variation | Consecutive**" settings will make legato samples, which are played consecutively, sound more metallic with each new note simulating that with each new legato sample, less of the original sustain tone, is audible.

• Variation

• Variation | Consecutive

CHAPTER 17 ACOU6TICS LEGATO SETUP CONT'D

Legato Mode | Slides | Probability:

If it's not possible to play a legato articulation like a hammer on or a pull off, because you setup "**MAX RANGE**", "**MAX CONSECUTIVE**" or "**MAX TIME DIFFERENCE**" in a way that limits those articulations, a slide is played instead if you changed the "**Legato <> Range**" knob to slide. For example: if you play E2 followed by G2 and you set "**Max Range**" for hammer ons to 2, a slide up will be played instead. The "**Probability**" settings allows you to setup how often a slide is randomly played. If no slide is played, the start articulation is used instead.

LEGATO MODE | TRANSITION

The transition parameters allow you to setup the way the legato engine is connected to the legato samples for each articulation (**Hammer Ons, Pull Offs, Slide 1 Fret and Slide 2 Frets**). "**By Legato AI"** means that an articulation is automatically selected by the legato logic. "**By Keyswitch"** means that you activated an articulation via keyswitch.

Transition | X-Fade:

The "**Fade In**" parameter allows you to setup how much the new note is crossfaded with the last note. Lower values add more attack, higher values result in a smoother transition.

Transition | Time | LoVel

Transition | Time | HiVel:

The "**Time**" parameter allows you to setup how much of the transition portion in the sample is played. Lower values result in a more direct response, while higher values will add more of a glide effect. You can setup different values for notes played with low velocity and for notes played with high velocity.

Legato | Transient:

With the "**Transient**" setting you can smoothen a transition (an example would be a hammer on to a pull off) or you can add more attack. Lower attack settings will result in a smoother sound while higher attack settings will add more attack. The sustain parameter allows you to extend or shorten the sustain phase of the new note in a transition.

- Attack
- Sustain

CHAPTER 17 ACOU6TICS LEGATO SETUP CONT'D

Legato | Max Range:

Setup the maximum range in which hammer ons, pull offs or slides are played here. If you play E2 followed by F#2 on the lowest string and you setup the max range for a hammer on to 1, the hammer on won't be played in because the new note is 2 frets away from the last note.

- Hammer Ons
- Pull Offs
- Slides

Legato | Max Consecutive:

Setup the maximum number of hammer ons, pull offs or slides than can be played in a row here. If you set '**Max Consecutive**' for hammer ons to 1 and you play E2 followed by F2 and F#2, only F2 will trigger a hammer on and F#2 will be played with the start articulation instead.

- Hammer Ons
- Pull Offs
- Slides

Legato | Max Time Difference:

Setup the maximum time difference in which hammer ons, pull offs or slides can be played here. If you set the "**Max Time Difference**" for hammer ons to 500ms and you play E2 followed by F2 and you play F2 in less than 500ms, a hammer on will be played. If you play F2 after 500ms it will be played with the start articulation instead.

- Hammer Ons
- Pull Offs
- Slides

HAMMER ON | BY LEGATO AI

Transition | X-Fade:

The "**Fade In**" parameter allows you to setup a per string offset of how much the new note is crossfaded with the last note. Lower values add more attack, higher values result in a smoother transition.

Transition | X-Fade:

The "**Sample Start**" parameter allows you to setup a sample start offset per string. Lower values result in more attack, higher values will cut away more of the attack portion of the sample.

CHAPTER 17 ACOU6TICS LEGATO SETUP CONT'D

Legato Samples | Transition (when played via keyswitch):

The "**Fade In**" parameter allows you to setup how much the new note is crossfaded with the last note. Lower values add more attack, higher values result in a smoother transition.

- Fade In | Hammer On / Sustain
- Fade In | Pull Off
- Fade In | Slides

The "**Time**" parameter allows you to setup how much of the transition portion in the sample is played. Lower values result in a more direct response, while higher values will add more of a glide effect.

- Time | Hammer On / Sustain
- Time | Pull Off
- Time | Slides

LEGATO SETUP | PLAY SLIDE KEYSWITCH

Play Slide Keyswitch | Speed

The speed of a slide normally depends on the time between the first and the second note you play to trigger the slide. With the speed setting you can make all slides faster (1% - 100%) or all slides slower (-1% to -100%).

Speed | Min/Max

These settings allow you to limit the slide speed to a minimum and a maximum value. If you trigger a very fast or a very slow slide, they will stay within those limits. For example: if you play one note very shortly after a second note, which normally would trigger a 20ms slide but you set "**Speed Min**" to 50ms, a 50ms slide will be played instead.

Speed | Accelerate (per Fret)

Setup the acceleration of the the simulated finger movement here. The default value of 5ms means that every fret you move up/down on the fretboard when playing a up/down slide is played 5ms faster than the fret before.

Velocity Loss | Up/Down (per Fret)

These settings allows you to setup how much the velocity is automatically decreased with each fret you slide.

CHAPTER 18

Acou6tics/Advanced Setup VOLUME & DYNAMIC SETUP PER ARTICULATIONS

V&D PER ARTICULATIONS | INSTRUMENT:

Instrument | Dyn. Range:

Setup the dynamic range of the instrument here. Higher values mean more dynamic, lower values mean less dynamic.

Articulation | Dyn. Range:

Setup the amount of normalization of the samples here. 100% means that all articulations are fully normalized and have the same volume. **Note**: You'll lose the natural difference between the different strings and articulations and you will need to re-adjust the volume of the individual articulations if you set this value to high.

CHAPTER 18 ACOU6TICS V&D PER ARTICULATIONS CONT'D

Instrument | Volume:

This is the master volume knob. If you turn up the sample normalization we recommend you lower the master volume to avoid clipping.

V&D PER ARTICULATIONS | ARTICULATION:

Setup and tweak all individual articulations available in Acou6tics here. If you think the muted notes are too quiet or too loud, simply select "**Palm Muted**" from the list and adjust the articulation. This gives you full flexibility of setting up each instrument the way you prefer it. After you changed those settings we recommend you save a new version of the instrument. If at any point you want to go back to the default settings simply click on the "**Load Default | Per Articulation**" button.

Articulation | Dyn. Range:

Setup the dynamic range of the selected articulations here. Higher values mean more dynamics, lower values mean less dynamics.

Articulation | Normalize:

Setup the amount of normalization of individual articulations here. 100% means that the articulation is normalized to the maximum. **Note**: You'll lose the natural difference between the different strings and articulations and you will need to re-adjust the volume of the articulation if you set this value too high.

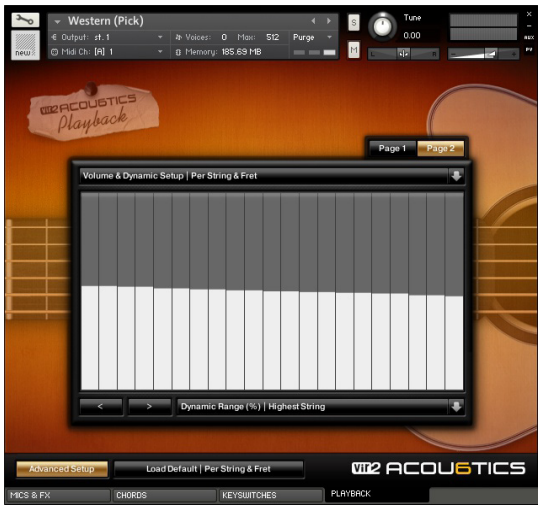
Articulation | Volume:

Setup the volume of a individual articulations here.

CHAPTER 19

Acou6tics/Advanced Setup VOLUME & DYNAMIC SETUP PER STRING & FRET

V&D PER STRING & FRET | DYNAMIC RANGE (%):



Dyn. Range | Lowest String/Highest String:

Setup the dynamic range for the lowest and the highest string here. The dynamic range for the strings in between are interpolated.

The x-axis of the table (from left to right) represent the frets of the each string. The y-axis (from bottom to top) represents the dynamic range in percentages. This allows you to correctly setup the changes that happen on a real guitar. For example: The dynamic range on the lower frets is a bit higher than the dynamic range of the higher frets.

Normalize | Lowest String/Highest String:

Setup the amount of normalization for the lowest and the highest string here. The amount of normalization for the strings in between are interpolated.

The x-axis of the table (from left to right) represent the frets of the each string. The y-axis (from bottom to top) represents the normalization amount in percentages.

Volume | Lowest String/Highest String:

Setup the volume for the lowest and the highest string here. The volume of the strings in between is interpolated.

The x-axis of the table (from left to right) represent the frets of the each string. The y-axis (from bottom to top) represents the volume amount in percent.

Decay (MS) | Lowest String/Highest String:

Setup the sustain decay for the lowest and the highest string here. The sustain decay of the strings in between are interpolated.

This setting affects how much build up is taking place when two or more notes on the same string and fret are played shortly after each other. Lower values mean less build up/overlay of two notes. Higher values mean more build up/overlay of two notes.

The x-axis of the table (from left to right) represent the frets of the each string. The y-axis (from bottom to top) represents the sustain decay in milliseconds (1000ms = 1s).

Decrease Release Volume (MDB/S) | Lowest String/Highest String:

Setup how loud release samples are in relation to how long you held a note for the lowest and highest string here. The decrease release volume value of the strings in between are interpolated.

The x-axis of the table (from left to right) represent the frets of the each string. The y-axis (from bottom to top) represents the decrease of the release volume in mdB / s (1000 mdB = 1 dB). For example: If you set the decrease release volume to 3000 mdB/S, this will mean that with each second you hold a note, the release volume will be decreased by 3dB.

Acou6tics/Advanced Setup Legato Sample Start Setup Per Articulation, String & Fret

Legato Sample Start Setup | Per Articulation, String & Fret

This page switches the engine into a sample cutting mode. You can select each legato articulation and setup a sample start for each fret. You can test and cut each fret by playing a note in the play range marked with the blue keys on Kontakt's virtual keyboard. For example, E1 will play fret 0, F1 will play fret 1, F#2 will play fret 2 and so on. To leave the sample cutting mode simply close the advanced setup tab or switch back to page 1.

Note: We recommend not to change the default values. We spent a lot of time setting them up correctly.

Acou6tics/ QUICK START

ACOUSTICS QUICK START

To begin, load desired instrument patch into Kontakt. By default, your instrument is set to Bank 1 which is the Sustain Polyphonic Articulation. When you press down a key on your keyboard in the blue playable range, a sustain note is then triggered. To play a chord, simply play a chord as you would on a piano in the blue play range and Acou6tics' advanced chord detection engine will automatically re-voice the chord as it would be played on a guitar.

To simplify as much as possible how this instrument is played, one must understand the layout of the instrument on your MIDI keyboard. The range of the playable notes for the selected instrument are colored blue on the virtual keyboard shown at the bottom of the Kontakt Player. The keys to the left of the instrument range are Keyswitches (black/white) and Forced Keyswitches (red), where as the keys to the right are Trigger Keys (green). The cyan colored keys trigger no sound, however, will activate if played with a chord.

The image bellow is the layout for Western (finger).

UNDERSTANDING KEYSWITCHES

Keyswitches control the major articulations. As mentioned before, by default, the instrument will load the sustain articulation (Bank 1) which on the keyboard is C0. Pressing C#0 will switch to Bank 2, which is a bank that includes a reduced sustain range and harmonics. D0 will switch to Bank 3, which also has a reduced range for sustain which gives you the ability to control individual strings of whatever chord you play within the instrument range. D#0 is Bank 3 which switches play mode to tremolo. Banks 4 and 5 control Legato Mode with Bank 4 (E0) being legato focusing on hammer-on and pull-off transitions, and Bank 5 (F0) focusing on Slide Up and Slide Down transitions.

UNDERSTANDING KEYSWITCH FORCED

A forced keyswitch is an articulation that is only initiated if the keyswitch is held down on the keyboard. For instance, if you want to perform a hammer-on at any given time, simply hold down F#0 while you play the desired note.

Note: Forced keyswitches change depending on which bank is selected.

UNDERSTANDING TRIGGER KEYS

Trigger Keys trigger a desired sound or strum. Trigger Keys will change depending on which bank is selected.

Playing Tip: Many MIDI guitar products lose their realism when chords are changed in a strum pattern. Due to this issue we developed a couple unique trigger keys to achieve the most realistic transitions between two chords. It is natural for a guitar player to lift all his fingers off the frets when switching between chords resulting in the sound of the resonating open strings right before the next chord is played. Use the Open Strings + Slide Noise trigger key at D6 or D#6 to achieve this effect. Additionally, when a guitarist is strumming a quicker and busier strum pattern often it is natural for an Open Strum to occur because the player has already lifted his fingers to prepare for the next chord on his final up strum. Use the Open String | Strum | Up trigger key at C#6 to achieve this effect.

UNDERSTANDING STRUMMING

Strumming is controlled via Trigger Keys and will only work in Polyphonic Play Mode (Banks 1 and 3).

To strum, simply play any desired chord within the instrument's play range. Then, use the Trigger Keys to control what type of strum you prefer. The layout of the strum keys is simple. By default, white keys are down strums and black keys are up strums. Also, as one moves further up the keyboard the amount of strings strummed will be less and less. For instance, F5 is "Strum | Full | Down", which is a full strum of all strings played from top to bottom. In contrast, A#5 is "Strum | Upper 1/4 | Up" which is a partial strum of the upper 1/4 of strings on the instrument.

The Humanization engine of Acou6tics will automatically add "Buzz" sounds, "Slide" sounds, and variations between the strings in the chords being strummed. Adjustments to these sounds can be made in Advanced Setup/Noise Setup.

Playing Tip: Try experimenting between various combinations of strum Trigger Keys. You'll find this can make a big difference in achieving the most realistic strum patterns.

Playing Tip: When strumming, hold down the sustain pedal. The sustain pedal does not work as a typical sustain pedal would with with a piano. With Acou6tics, the sustain pedal will recreate the natural resonance of a guitar between two plucked notes or strummed chords.

Playing Tip: Acou6tics, by default, will only allow for realistic guitar playing. For example, Acou6tics, on the 6 string instruments, will only allow six notes to be played at once. Once six strings have been voiced any new notes played will be played on the most appropriate string for that note replacing the previously played note.

Playing Tip: To play picked arpeggiated patterns we recommend turning the strum knob all the way to the left. The text "Picked" will appear next to the knob.

UNDERSTANDING LEGATO MODE

Bank 5 (E0) is Legato HO/PO mode, which stands for Legato "Hammer On" and "Pull Off" mode. In this mode, when you are playing notes on the keyboard, the transition between notes will be with hammer-ons or pull-offs if notes being played overlap. Playing HO/PO articulations also depend on the location and speed of two overlapped notes. To trigger a note without a HO or PO, simply make sure that notes are not overlapping and a sustain note will trigger.

Bank 6 (F0) is Legato SU/SD mode, which stands for Legato "Slide Up" and "Slide Down" mode. This Legato mode works the same as the HO/PO Legato mode except with the Slide up/Slide Down articulation.

Playing Tip: On Page 1 of the Playback Page, use the Legato X-Fade knob to control the attack of the Legato performance. Move the knob all the way to the left at -50 ms for a faster/tighter performance. Moving the knob further to the right will decrease the attack between notes.

Playing Tip: In Legato Mode, a slide-In is automatically triggered when a key is struck with a velocity of 120 or higher. To control this feature, use the Legato Slide-In to set the threshold.

Note: In the Legato Setup page of the advanced settings there is a button called "Forced Monophonic". If you deactivate this it will easily allow you to play a chord then switch to legato mode and play a legato articulation without silencing the existing chord you were playing. This is useful if you wanted to play a trill on one of the strings of your chord you just played.

QUICK PRESETS

The purpose of the Quick Presets are to give you a quick and easy way to control the realism of Acou6tics playback without having to dive in too deep into the advanced setup. This includes presets for humanization, realism controls, double tracking, and also setting Acou6tics to "General MIDI" mode which allows it to be played like a traditional keyboard.

Note: Double tracking is very common when recording a guitar. Acou6tics makes this easy for you with Quick Presets. To use this feature you should have two instances open of the same instrument. On the first instrument select "Double Tracking - Guitar Left" in the quick presets tab and on the other instrument select "Double Tracking - Guitar Right". Acou6tics will automatically pan your two instruments and ensure different samples are always used to avoid phasing. In a matter of seconds you will have two distinct guitar performances that will fit perfectly in your mix.

Playing Tip: If you would like to play Acou6tics like a traditional MIDI guitar patch, go to Advanced Setup and on the top of the page you will see a Quick Presets tab. Click on this "Quick Presets" tab and select "General Midi" on the "Full Reset" section. This will allow you to play any number of notes on the keyboard without limitation. Note: The fretboard display and chord functionality will be turned off in this mode.

Note: When setting realism tweaks to "High" there will be a 55ms delay so you will need to compensate for this on your MIDI track in your DAW. We recommend using low realism for live playing and using the highest realism when bouncing your track.

Acou6tics/ TECH SUPPORT, ETC.

TECH SUPPORT

Vir2 Instruments stands behind its products and is committed to helping you get the most out of using them. Please check the Support area of the www.vir2.com web site if you encounter any difficulties in using the product. You may also e-mail support@vir2.com.

Before getting in touch with Vir2 Instruments regarding problems with the product, make sure you are running the latest versions of the library, engine, and Service Center. We are continuously updating and improving the product, so it is possible that there are more recent updates available that were released after the physical manufacturing of your installation drive.

THE FULL VERSION OF KONTAKT 5

Acou6tics ships with Kontakt 5 running in library mode, meaning it is fully able to play back the Acou6tics library and access the parameters detailed in this manual.

Registered owners of Acou6tics are eligible for a special cross-grade discount to the full version of Kontakt 5, which enables users to create their own libraries, import libraries in non-Kontakt formats, and access numerous deep editing features.

Visit www.nativeinstruments.com for details on the Kontakt cross-grade.

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